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Sclerosing encapsulating peritonitis in a 47-year-old woman

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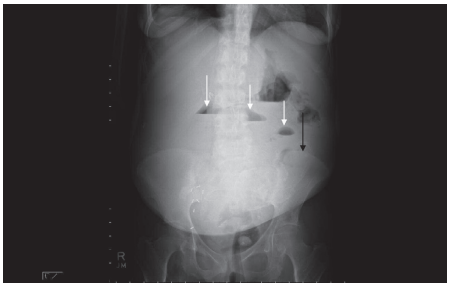

Figure 1 | Abdominal X-ray showing air fluid levels and calcifications.

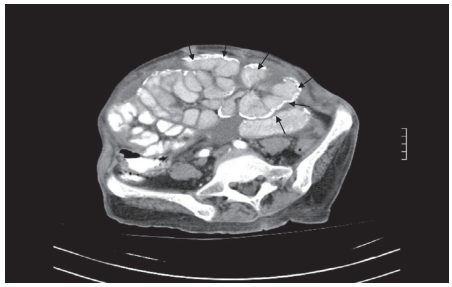

Figure 2 | Computed tomography scan of the abdomen with contrast showing calcifications along the peritoneum and small-bowel loops.

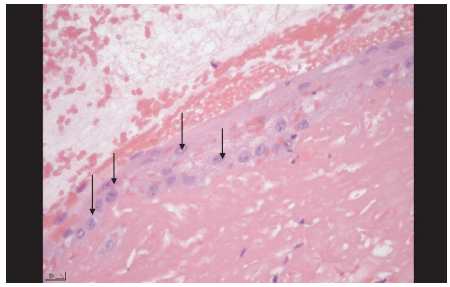

Figure 3 | Peritoneal biopsy with hematoxylin and eosin stain (original magnification, ×40) showing mesothelial denudation.

A 47-year-old African-American woman presented with abdominal pain, nausea, vomiting, and malaise. She had been on continuous ambulatory peritoneal dialysis for 14 years and had been switched to hemodialysis 2 years earlier because of recurrent migration of the peritoneal dialysis catheter and low ultrafiltration. She had had multiple episodes of bacterial peritonitis in the past. Abdominal X-ray showed small-bowel obstruction and peritoneal calcifications (Figure 1). Computed tomography scan of the abdomen showed multiple thick calcifications in several small-bowel loops (Figure 2). Exploratory laparotomy revealed hemorrhagic ascites and multiple thick leathery adhesions with an encapsulated small bowel. Peritoneal biopsies revealed dense fibrous tissue with hyalinization, calcification, and necrosis. Because of the extensive nature of the adhesions, a few were lysed. The patient was managed with bowel rest, hyperalimentation, and steroids. The patient died 6 months later of causes secondary to septicemia.

Sclerosing encapsulating peritonitis is a rare and fatal complication seen more commonly in continuous ambulatory peritoneal dialysis patients. The incidence is less than 1% and increases with the duration of continuous ambulatory peritoneal dialysis. The etiology is multifactorial. Pathogenesis includes mesothelial denudation (Figure 3) and proliferation with fibrin exudation and continuous intracavitary release of bacterial toxins. Patients present with bowel obstruction, peritonitis, malnutrition, and loss of ultrafiltration. Steroids, immunosuppressive therapy, and early release of adhesions may help in management. Major causes of death are related to bowel obstruction or complications of surgery.